

JAN 09 1990

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January 2, 1990

New Jersey Dept. of Environmental Protection  
Bureau of Federal Case Management  
Division of Hazardous Waste Management  
401 East State Street  
Trenton, New Jersey 08625

ATTN: Edgar Kaup

SUBJ: L.E. Carpenter  
Wharton, New Jersey

Dear Ed:

During review of laboratory testing data for the above-referenced job, questions arose concerning laboratory method blank results. These questions were asked of the laboratory and their response came after we submitted the "Report of Remedial Investigation Findings" in November, 1989. The purpose of this letter is to inform you of the problems and submit the minor changes that have occurred in our report due to the laboratory's response.

Two problems were noted while reviewing the method blank analytical results. The first problem was that the base neutral analysis results of hand auger samples HA-16, 17 and 19 indicated diethyl phthalate. The laboratory also flagged this as a compound present in the laboratory method blank. Review of the results for the laboratory method blank analyzed with these samples indicated diethyl phthalate was not detected. This conflict was reported to the laboratory. The laboratory responded by re-submitting the method blank results, indicating that diethyl phthalate was detected.

The second problem was that the laboratory reported that some of the base neutral compounds detected in TP-73 were also present in the method blank. Review of the results of the method blank analyzed with the TP-73 sample indicated different compounds detected than what were originally flagged. This conflict was also reported to the laboratory. The laboratory responded by resubmitting the method blank assignment sheet (QC Lot Assignment) and indicated that the sample had been assigned to the wrong method blank and that the compounds originally flagged and reported for the sample were correct.

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Attached to this letter are revised data summary tables reflecting the changes based on the new laboratory information. Revisions made to the original report include new base neutral method blank summaries for HA-16, HA-17, HA-19 and TP-73 and a revised summary of hand auger base neutral results for HA-16, HA-17 and HA-19 (Table 13). All the revised pages are marked with a note "revised December 20, 1989." Also attached to this letter are copies of the laboratory's report revisions.

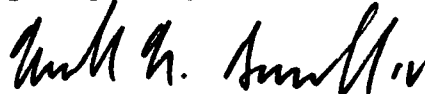
If you have any questions regarding these changes, please call.

Sincerely,

GEOENGINEERING, INC.



Nancy van Dyke  
Hydrogeologist



William W. Dunnell IV  
Project Manager

WWD/NVD/ebt

Attachments

cc: R. Hahn  
C. Anderson  
M. Rodburg

SUMMARY OF BASE NEUTRAL SOIL METHOD BLANKS - HAND AUGER  
 BY EPA METHOD 8270  
 LE CARPENTER, WHARTON, NEW JERSEY

GeoEngineering, Inc.  
 November, 1989  
 Page 2 of 2  
 Revised 12/20/89

SAMPLE ID:	HA-16	HA-17	HA-18	HA-19
DATE SAMPLE/METHOD BLANK ANALYZED:	5/15/89	5/17/89 *	5/16/89 *	5/15/89 *
PARAMETER (ug/kg)				
bis(2-Chloroethyl)ether	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	ND	ND	ND	ND
Hexachloroethane	ND	ND	ND	ND
Nitrobenzene	ND	ND	ND	ND
Isophorone	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND
Hexachlorocyclopentadiene	ND	ND	ND	ND
2-Chloronaphthalene	ND	ND	ND	ND
Dimethyl phthalate	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND
2,6-Dinitrotoluene	ND	ND	ND	ND
Diethyl phthalate	52	52	52	52
4-Chlorophenyl phenyl ether	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND
N-Nitrosodiphenylamine	ND	ND	ND	ND
4-Bromophenyl phenyl ether	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND
Di-n-butyl phthalate	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND
Butyl benzyl phthalate	ND	ND	ND	ND
3,3'-Dichlorobenzidine	ND	ND	ND	ND
Benzo(a)anthracene	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND
Di-n-octyl phthalate	ND	ND	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND
TOTAL TARGETED BASE NEUTRALS ***	52	52	52	52
NON-TARGETED BASE NEUTRALS				
C9H20 isomer	260	260	260	260
TOTAL NON-TARGETED BASE NEUTRALS	260	260	260	260

NOTES: J - Detected below reporting limit or is an estimated concentration.  
 ND - Not detected.  
 \* - Sample analyzed on indicated date, method blank analyzed on 5/15/89.  
 \*\*\* - Includes compounds at estimated concentrations (J).

FOOTNOTE: Hand auger samples HA-20 through HA-25 were not sampled for base neutral compounds, thus they do not appear on this table.

SUMMARY OF BASE NEUTRAL SOIL METHOD BLANK RESULTS - TEST PITS  
 BY EPA METHOD 8270  
 LE CARPENTER, WHARTON, NEW JERSEY

GeoEngineering, Inc.  
 November, 1989  
 Page 10 of 10  
 Revised 12/20/89

SAMPLE ID:	TP-73	TP-74	TP-75	TP-77	TP-78	TP-79
DATE SAMPLE/METHOD BLANK ANALYZED:	5/31/89 #	5/24/89 #	5/20/89**	5/21/89*	5/18/89*	5/19/89
PARAMETER (ug/kg)						
bis(2-Chloroethyl)ether	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND	ND
Hexachloroethane	ND	ND	ND	ND	ND	ND
Nitrobenzene	ND	ND	ND	ND	ND	ND
Isophorone	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	ND	98 J	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND
Diethyl phthalate	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	ND	ND	89 J	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	ND	ND	130 J	900	900	900
Chrysene	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND
TOTAL TARGETED BASE NEUTRALS ***	ND	98	219	900	900	900
NON-TARGETED BASE NEUTRALS						
2,6-bis(1,1-Dimethylethyl)-4-methylphenol	ND	ND	150	ND	ND	ND
4-Hydroxy-4-methyl-2-pentanone	23000 n	ND	ND	ND	ND	ND
Total Unknown compounds	2260	ND	330	3600	3600	3600
TOTAL NON-TARGETED BASE NEUTRALS ***	25260	ND	480	3600	3600	3600

NOTES: J - Detected below reporting limit or is an estimated concentration.  
 ND - Not detected.  
 n - Occurance of compound possibly due to laboratory contamination (aldol condensation product).  
 # - Sample analyzed on indicated date, method blank analyzed on 6/1/89.  
 \* - Sample analyzed on indicated date, method blank analyzed on 5/19/89.  
 \*\* - Sample analyzed on indicated date, method blank analyzed on 5/26/89.

TABLE 13: SUMMARY OF BASE NEUTRAL ANALYTICAL TESTING - HAND AUGER RESULTS  
BY EPA METHOD 8270-15  
L.E. CARPENTER, WHARTON, NEW JERSEY.

GeoEngineering, Inc.  
November 1989  
Revised 12/20/89

	HA-16	HA-17	HA-18	HA-19	FIELD **
SAMPLE ID:	3/28/89	3/28/89	3/28/89	3/28/89	3/28/89
DATE SAMPLED:	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	-
SAMPLE DEPTH (feet):					
PARAMETER (ug/kg)					
bis(2-Chloroethyl)ether	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND
Hexachloroethane	ND	ND	ND	ND	ND
Nitrobenzene	ND	ND	ND	ND	ND
Isophorone	ND	ND	ND	11000	ND
bis(2-Chloroethoxy)methane	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND
2-Chloronaphthalene	ND	ND	ND	ND	ND
Dimethyl phthalate	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	ND	ND	ND	ND	ND
Diethyl phthalate	56 Jp	53 Jp	ND	1900 JB	ND
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND
Di-n-butyl phthalate	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND
Butyl benzyl phthalate	37 J	360 J	ND	68000	ND
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND
Benzo(a)anthracene	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	5800	1700	1100	49000	ND
Chrysene	ND	ND	ND	ND	ND
Di-n-octyl phthalate	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND
TOTAL TARGETED BASE NEUTRALS ***	5837	2060	1100	129900	ND
NON-TARGETED BASE NEUTRALS					
Total Sulfur	ND	ND	ND	ND	ND
Total Phthalates	ND	ND	ND	5400	ND
Total Benzene compounds	ND	ND	ND	ND	ND
Total Alkane compounds	ND	990	460	11400	ND
Total Alkene compounds	210	2550	260	11000	ND
Total Anthracene compounds	ND	ND	ND	ND	ND
Total Naphthalene compounds	ND	ND	ND	ND	ND
Total Alcohol compounds	ND	ND	1500	33000	ND
Total Hexadecanoic acid	ND	660	ND	ND	ND
Total Phosphoric acid	ND	ND	ND	67000	ND
Total Propanoic acid	ND	ND	ND	11000	ND
Total Aldehyde compounds	ND	1610	950	18500	ND
Total Unknown compounds	320	2250	3350	139900	ND
Total Other compounds	ND	ND	ND	47000	ND
TOTAL NON-TARGETED BASE NEUTRALS	530	8060	6520	344200	ND

NOTES:

J - Detected below reporting limit or is an estimated concentration.

p - Compound also detected in laboratory method blank.

B - Compound also detected in laboratory method blank, and sample concentration is at least 5 times greater than laboratory method blank concentration.

ND - Not detected.

\*\* - Analyzed by EPA Method 625 and reported in ug/l.

\*\*\* - Excludes compounds detected in laboratory method blank (p); includes compounds detected at trace concentrations (J) and (B).

**Enseco-Erco Report Revisions**

HA-16, 17 and 19  
Dated November 28, 1989

## METHOD BLANK SUMMARY

REVIS'D DATA SHEET 11/28/89

Case No. GeoEngineering Region — Contractor Enseco-Ereo Laboratory Contract No. — Reporting limit M

[illegible]

Comments: NA = Not Applicable.

METHOD BLANK REPORT  
Semivolatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8270-PP-BN			
Matrix: SOIL			
QC Lot: 10 APR 89-SA QC Run: 10 APR 89-S13			
bis(2-Chloroethyl)ether	ND	ug/kg	330
1,3-Dichlorobenzene	ND	ug/kg	330
1,4-Dichlorobenzene	ND	ug/kg	330
1,2-Dichlorobenzene	ND	ug/kg	330
bis(2-Chloroisopropyl)ether	ND	ug/kg	330
N-Nitroso-di-n-propylamine	ND	ug/kg	330
Hexachloroethane	ND	ug/kg	330
Nitrobenzene	ND	ug/kg	330
Isophorone	ND	ug/kg	330
bis(2-Chloroethoxy)methane	ND	ug/kg	330
1,2,4-Trichlorobenzene	ND	ug/kg	330
Naphthalene	ND	ug/kg	330
Hexachlorobutadiene	ND	ug/kg	330
Hexachlorocyclopentadiene	ND	ug/kg	330
2-Chloronaphthalene	ND	ug/kg	330
Dimethyl phthalate	ND	ug/kg	330
Acenaphthylene	ND	ug/kg	330
Acenaphthene	ND	ug/kg	330
2,4-Dinitrotoluene	ND	ug/kg	330
2,6-Dinitrotoluene	ND	ug/kg	330
Diethyl phthalate	52	ug/kg	330
4-Chlorophenyl phenyl ether	ND	ug/kg	330
Fluorene	ND	ug/kg	330
N-Nitrosodiphenylamine	ND	ug/kg	330
4-Bromophenyl phenyl ether	ND	ug/kg	330
Hexachlorobenzene	ND	ug/kg	330
Phenanthrene	ND	ug/kg	330
Anthracene	ND	ug/kg	330
Di-n-butyl phthalate	ND	ug/kg	330
Fluoranthene	ND	ug/kg	330
Pyrene	ND	ug/kg	330
Butyl benzyl phthalate	ND	ug/kg	330
3,3'-Dichlorobenzidine	ND	ug/kg	660
Benzo(a)anthracene	ND	ug/kg	330
bis(2-Ethylhexyl)phthalate	ND	ug/kg	330
Chrysene	ND	ug/kg	330
Di-n-octyl phthalate	ND	ug/kg	330
Benzo(b)fluoranthene	ND	ug/kg	330
Benzo(k)fluoranthene	ND	ug/kg	330
Benzo(a)pyrene	ND	ug/kg	330
Indeno(1,2,3-c,d)pyrene	ND	ug/kg	330
Dibenz(a,h)anthracene	ND	ug/kg	330
Benzo(g,h,i)perylene	ND	ug/kg	330

J = Result is detected below the reporting limit or is an estimated concentration.



**Enseco-Erco Report Revisions**

**TP-73**

**Dated December 6, 1989**

QC LOT ASSIGNMENT REPORT  
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
003232-0001-SA	SOIL	8270-S	19 APR 89-SA	20 APR 89-S13
003232-0001-SA	SOIL	8270-S	19 APR 89-SA	20 APR 89-S13
003232-0002-SA	SOIL	8270-S	11 MAY 89-NA	26 MAY 89-N11
003232-0002-SA	SOIL	8270-S	11 MAY 89-NA	26 MAY 89-N11
003232-0003-SA	SOIL	8270-S	11 MAY 89-NA	26 MAY 89-N11
003232-0003-SA	SOIL	8270-S	11 MAY 89-NA	26 MAY 89-N11
003232-0005-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N13
003232-0005-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N13
003232-0006-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N13
003232-0006-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N13
003232-0007-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N13
003232-0007-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N13
003232-0008-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0008-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0009-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0009-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0010-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0010-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0011-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0011-SA	SOIL	8270-S	11 MAY 89-NA	15 MAY 89-N14
003232-0013-SA	AQUEOUS	625-A	13 APR 89-FA	13 APR 89-F14
003232-0013-SA	AQUEOUS	625-A	13 APR 89-FA	13 APR 89-F14